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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/514,369	02/28/2000	Takayuki Shinohara	49657-625	9468

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EXAMINER

CONTEE, JOY KIMBERLY

ART UNIT	PAPER NUMBER
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2686

DATE MAILED: 07/19/2004

19

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/514,369

Applicant(s)

SHINOHARA ET AL.

Examiner

Joy K Contee

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 May 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-19 is/are rejected.
- 7) ☐ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \*   c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Response to Arguments***

1. Applicant's arguments filed on 5/11/04 with respect to claims 1-4,7 and 9-15 have been carefully considered but are not persuasive for the following reasons.

Examiner maintains a rejection under 35 USC 102 (b) using the Kuroda reference (5,444,664) and maintains the previously filed arguments. In Applicant's request for reconsideration it is argued that Kuroda does include a register for transferring data commonly to the blocks of divided memory (see page 3, paragraphs 4 & 5). Examiner disagrees. Examiner has augmented the previously filed rejection using Kuroda to reflect the defense provided below.

Considering the same reference as Applicant, Figs. 13 and 35 of Kuroda, there is a teaching of a common data line (CD). Col. 28, lines 42-54 describes the relation between the memory sections (ARY0-ARY7) (i.e., reads on divided plurality of storage units) and suggests that allows a common data line (CD) (i.e., reads on to be divided for each memory section or mat. The common data line reads out each bit from the memory sections (ARY0- ARY7) in synchronization with a clock signal (i.e., in sync with the read operation) (see col. 14,line 50 to col. 15, line 4 and col. 24,lines 6-14). Hence, Kuroda's arrangement of the flash memory divided into memory sections (ARY0- ARY7) including a common data line (CD) which allows information in each memory section to be read out serially in synchronization with a clock signal as is required in Applicant's claim 12

provides a factual basis of a register (i.e., common data line CD) provided commonly to the respective storage units (i.e., ARY0-ARY7).

2. Applicant's arguments, see pages 5-7, filed 5/11/04, with respect to the rejection(s) of claim(s) 5 and 6 under 35 USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the combination of Kuroda, previously used and Bowen et al. (5,367,571).

#### ***Allowable Subject Matter***

3. The indicated allowability of claims 16 and 18 is withdrawn in view of newly discovered reference to Bowen et al. (5,367,571). Rejections based on the Bowen reference follows.
4. The indicated allowability of claims 17 and 19 is withdrawn in view of the previously used reference to Kuroda. Rejections based on the Kuroda follows.
5. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-4, 7,9-15,17 and 19 are rejected under 35 U.S. C. 102(b) as being anticipated by Kuroda et al. (U.S. Patent 5,444,664).

Regarding Claims 1 and 12, Kuroda discloses a memory system for a portable telephone including a signal transmission/reception portion for transmitting and receiving a signal and a control portion for controlling at least a signal transmission and reception operation of said transmission/reception portion, comprising:

a random access memory (RAM) providing a working area for said control portion (col. 6, lines 17-22); and

a flash memory (Fig. 41, FLASH) including a memory array (see Fig. 26, ARY) for storing a program for said control portion (CPU) and at least transmission and reception data (i.e., reads on voice information, e.g., a person leaving a message in memory or phone conversation (transmitted/received data in real-time) may be recorded into memory) in a non-volatile manner under a control of said control portion, said memory array being divided into a plurality of storage units, and a register, provided commonly to the respective storage units, having information in a storage unit of said plurality of storage units transmitted thereinto and allowing serial readout (i.e., reads on common data line (CD), in synchronization with a clock signal, i.e., read operation, see Fig. 28) of the transmitted information (Col. 14, lines 50 to Col. 15, line 4 and Col. 32, line 61 to Col. 33, line 2).

Regarding Claim 2, Kuroda teaches the memory system for the portable telephone according to claim 1, wherein said random access memory and said flash memory are coupled to an internal bus interconnecting said control portion and said signal transmission/reception portion (It is inherent, as can be seen in Fig.41, that the RAM and the flash memory are coupled to an internal bus interconnecting all major parts of the mobile phone, including the control portion and the transmission/reception portion).

Regarding Claim 3, Kuroda teaches the memory system for the portable telephone according to claim 2 comprising a bus converting circuit connected between said file storage flash memory and said internal bus and functioning as an interface circuit for said file storage flash memory (see Fig. 1, LDBSUS and HDBUS, col. 19, lines 58-67),

Regarding Claim 4, Kuroda teaches the memory system for the portable telephone according to claim 3, wherein said file storage flash memory and said bus converting circuit are integrally formed into a memory card (Fig.43 shows a memory card, and the bus converting circuit could be part of the input/output circuit shown as I/O in Fig.43; Col. 34, Lines 11-13) attachable and detachable to and from said portable telephone.

Regarding Claim 7, Kuroda teaches the memory system for the portable telephone according to claim 1, wherein said flash memory comprises an AND type flash memory (Col. 9, Lines 43-47).

Regarding Claims 9 and 13, Kuroda teaches the memory system for a portable telephone according to claims 1 and 12, respectively, wherein a program stored in the storage unit of said plurality of storage units is serially read out to the RAM to be executed (Col. 5, Lines 30-32, Note that "the stored information to be processed by the CPU"

indicates that the stored program bits are read out from the memory and into the CPU in a serial fashion as shown in Fig.28).

Regarding Claims 10 and 14, Kuroda discloses the limitations of claims 1 and 12, respectively, wherein said control portion performs a process using the RAM as an instruction memory to which the program is serially transferred from the flash memory (col. 6, lines 10-43).

Regarding Claims 11 and 15, Kuroda discloses the limitations of claims 1 and 15, respectively wherein said control portion stores transmission and reception data into said RAM as a buffer memory, and transfers the stored transmission and reception data from the RAM to the flash memory (col. 6, lines 10-24).

Regarding claims 17 and 19, Kuroda further discloses the memory system for a portable telephone according to claims 12 and 1, respectively, wherein the storage units (i.e., reads on ARY0-ARY7) are each formed of a sector (i.e., reads on memory mat or sections ARY0-ARY7) (col. 13, lines 57-61).

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 5,6, 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuroda, in view of Bowen et al. ("Bowen"), U.S. Patent No. 5,367,571.

Regarding Claim 5, Kuroda teaches the memory system for the portable telephone according to claim 3, wherein said file storage flash memory is constituted of a memory card being attachable and detachable to and from said bus converting circuit.

Kuroda fails to explicitly show wherein said file storage flash memory is constituted of a memory card being attachable and detachable to and from said bus converting circuit.

In a similar field of endeavor, Bowen discloses wherein said file storage flash memory is constituted of a memory card being attachable and detachable to and from said bus converting circuit (see Fig. 7, #138 and col.12,line 60 to col.13,line 17).

At the time of the invention it would have been obvious to one of ordinary skill in the art to have modified Kuroda to include a detachable memory card for the purpose of providing additional memory to increase the internal memory of a portable unit.

Regarding Claim 6, Kuroda teaches the memory system for the portable telephone according to claim 1, but is silent on said control portion, said random access memory and said file storage flash memory being integrally formed as a control unit.

However, Bowen further discloses said control portion, said random access memory and said file storage flash memory being integrally formed as a control unit (see Fig. 7, #138 and col.12,line 60 to col.13,line 17).

It would have been obvious for one of ordinary skill in the art at the time the invention was made to have said control portion, said random access memory and said file storage flash memory being integrally formed for the purpose of having an integrated control unit.



Regarding claims 16 and 18, Kuroda discloses the limitations of claims 12 and 1, respectively, but fails to disclose wherein one unit of the storage units comprises a storage capacity ranging from 512 bytes to 2K bytes.

Bowen further discloses internal or external memory (i.e., for expansion) able to reach the size of memory in blocks or pages of 64K bytes (col. 120, lines 41-50).

Hence at the time of the invention it would have been obvious to one of ordinary skill in the art to modify Kuroda to include an extensive amount of storage capacity for the purpose of expanding size of stored data by using an expansion card, which is detachable.

### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joy K. Contee whose telephone number is 703-308-0149. The examiner can normally be reached on 5:30 am to 2:00 p.m, Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 703-305-4379. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for all communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

  
Joy Contee

July 12, 2004

  
**CHARLES APPIAH**  
**PRIMARY EXAMINER**